

A NEW SPECIES OF *ZALE* HÜBNER FROM TEXAS AND NEW MEXICO  
(LEPIDOPTERA: NOCTUIDAE: CATOCALINAE)

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*Abstract.*—A new species of *Zale*, *chisosensis*, related to *Zale corvus* (Schaus) from Mexico, is described from Texas and New Mexico. The species is uncommon in collections, a reflection of its limited range in the southwestern United States.

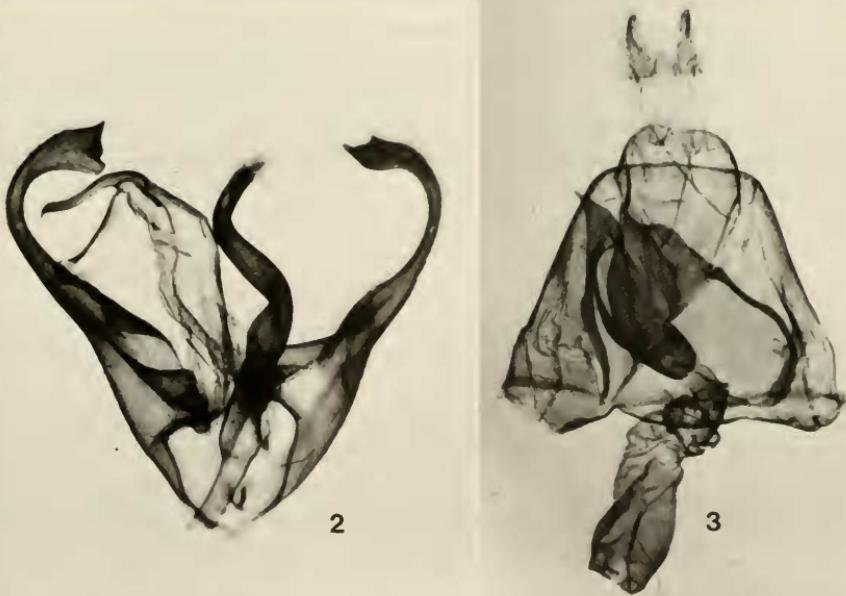
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The following species is poorly represented in collections, and it has usually been misidentified as either *Zale undularis* (Drury) or *Zale coracias* (Guenée). When the junior author first saw it, he thought it was *Zale corvus* (Schaus).

***Zale chisosensis* Blanchard and Franclemont, New Species**

*Diagnosis.*—Among the species of *Zale* that occur north of the Mexican Border this species is superficially most similar to *undularis* (Drury, 1770 [1773], 1: 19), but it differs in the course of the subterminal line which is produced into sharp points filled with black between veins  $R_5$  and  $M_1$  and between veins  $M_3$  and  $Cu_1$ . It lacks the conspicuous pale spot in the subterminal line between veins  $M_1$  and  $M_2$ , but it has a line of white scales on the outer side of the reniform. The most closely allied species is the Mexican species *corvus* (Schaus, 1901: 78) with which it agrees in all details of pattern. The male genitalia of the two species differ in many ways; those of *corvus* have the left valve with a large, subquadrate projection before the apex which is drawn out into an acute point, and the right valve broad throughout, tapering gradually to a pointed apex, and with a small, pointed lobe on the costal margin before the apex. The aedeagus of *corvus* is more sharply angled, forming almost a right-angle. The female genitalia of the two species are similar, but the differences are conspicuous; the pointed angle of the ventral plate of *corvus* is on the right side not the left, and the narrow, lateral plate of *corvus* is truncate at the apex not pointed as in *chisosensis*.

*Description.*—Black with a dull luster and a dusting of yellowish white



Figs. 1-3. *Zale chisosensis*. 1, Paratype, Mt. Locke, 6700 feet, Davis Mountains, Jeff Davis Co., Texas, 10 June 1969, A. & M. E. Blanchard; collection A. Blanchard. 2, Male genitalia, aedeagus *in situ*; paratype; genitalia slide AB 3712. 3, Female genitalia; paratype; genitalia slide AB 3711.

scales, area beyond subterminal line appearing smoother and with a slight bluish luster; transverse lines more intense black; costa of forewing with white spots near inception of lines; basal line double, curved, undulate, reaching base in fold; antemedial line curved, undulate, starting on costa  $\frac{1}{4}$  from base, reaching inner margin at  $\frac{1}{6}$  from base, double, elements widely spaced, incurved on veins R and 2nd A; median line angled outward below costa, somewhat undulate, appearing triple on lower  $\frac{1}{2}$  of wing; postmedial line angled below costa, incurved toward middle of reniform, undulate to inner margin, starting on costa  $\frac{3}{4}$  from base, reaching inner margin  $\frac{3}{4}$  from base, double, elements fine; subterminal line conspicuous, undulate, more or less parallel to outer margin, sharply angled outward between veins  $R_5$  and  $M_1$  and between veins  $M_3$  and  $Cu_1$ , points filled with intense black, some white or yellowish white scaling on outside of line between the two points; a series of vague, fine, vertical striae in terminal area; terminal line represented by pale scales and by pale points with black scales on inner sides between veins; outer margin evenly scalloped, incurved between veins; orbicular punctiform, black; reniform, narrow, elliptical, vaguely defined by black, a line of white scales on outer side. Hindwing with markings of forewing continued; antemedial line and median line represented by broad shades; postmedial line double; subterminal line sharply angled outward between veins  $M_3$  and  $Cu_1$ , point black filled; terminal area and terminal line much as on forewing. Some specimens show a brownish flush on the forewing between the median and postmedial lines above vein 2nd A and below  $Cu_2$ ; the type is such a specimen.

*Expanse*: Forewing length 23–25 mm.

*Male genitalia*: As figured.

*Female genitalia*: As figured.

Type.—♂; Mt. Locke, 6700 feet, Davis Mountains, Jeff Davis County, Texas, 10 June 1969, A. & M. E. Blanchard; collection of the U.S. National Museum of Natural History.

Paratypes.—6 ♂, 3 ♀; Mt. Locke, 6700 feet, Davis Mountains, Jeff Davis County, Texas, 10 June 1969 (3), 5 July 1969 (1), 19 July 1971 (1), A. & M. E. Blanchard; Green Gulch, Big Bend National Park, Brewster County, Texas, 27 June 1965 (1), 12 May 1972 (1), A. & M. E. Blanchard, 10 May 1972 (2), J. G. Franclemont; 5 in collection A. Blanchard; 4 in collection J. G. Franclemont.

In addition to the type-series from Texas, there are three specimens from New Mexico, a male from Beartrap Canyon Camp Ground, San Mateo Mountains, 8000 feet, 11 April 1971, collected by Richard Holland (in the Canadian National Collection), and two females from Near Hot Springs, Las Vegas [San Miguel County], 7000 feet, August 1882, collected by F. H. Snow (in the Cornell University Collection). These two females lack the

white scaling and appear entirely black; they were purchased from Snow by J. H. Comstock as *coracias* and stood under that name until recently.

#### ACKNOWLEDGMENTS

We wish to thank J. D. Lafontaine for the loan of the specimen from the Canadian National Collection and R. W. Poole of the Systematic Entomology Laboratory, U.S. Department of Agriculture, Washington, D.C., for reviewing the manuscript.

The photographs are by the senior author.

#### LITERATURE CITED

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